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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,872	01/14/2004	Rahul Gupta	2003P14713US	5185

7590 03/18/2005

Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
170 Wood Avenue South
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EXAMINER	
GARRETT, DAWN L	
ART UNIT	PAPER NUMBER

1774

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,872

Applicant(s)

GUPTA ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 14-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-11-2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to applicant's response to the restriction requirement dated February 4, 2005. Applicant elected Group I, claims 1-13 drawn to a device. Applicant stated in the response that claims 14-26 were canceled; however, an amendment to the claims canceling claims 14-26 was not received with the response to the restriction requirement. Accordingly, claims 14-26 remain present in the application at this time, but are withdrawn as non-elected claims.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The use of the term "base" in claims 1, 3, 9, and 11 is unclear as an adjective. It is not clear if the term means organic solution is the main component of the reformulated solution or if the term has another meaning. Clarification and/or correction are required.

5. The term "much lower" in claim 1 is a relative term which renders the claim indefinite. The term "much lower" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

6. The term "substantially flat and uniform profile" in claim 1 is considered to be indefinite. The claim term "substantially" is clearly a comparative term. Comparison requires a reference

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point. Therefore, to flatten something, one must flatten it with respect to either itself or some other object. In addition, the degree of uniformity with respect to “substantially...uniform” is unknown. Clarification and/or correction are required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Endo et al. (US 6,787,063). Endo et al. discloses electro-optical devices (see abstract). Example 2 describes a device comprising a glass substrate with an indium tin oxide (ITO) coating per the instant “deposition surface” (see col. 11, lines 18-19). Pixels comprised of polyimide film and SiO₂ film formed by lithography are disposed on the ITO anode layer per the instant “photo-resist layer” (see col. 11, lines 18-19). The anode layer and polyimide/SiO₂ film are subjected to a plasma treatment per instant claim 4 (see col. 11, lines 24-37). A hole injection-transportation solution is applied to the cavity formed by the patterned polyimide/SiO₂ pixels. The solvent in the solution is removed by heat treatment (see col. 11, lines 37-46). The hole injection-transportation composition comprises 11.08% Baytron P (a PEDOT:PSS conductive polymer, see product information), 1.44% poly(styrene sulfonate), 10% isopropyl alcohol, 27.48 % n-methylpyrrolidone, and 50% 1,3-dimethyl-imidazolinone (see Table 5). The isopropyl alcohol of the solution is considered to be a humectant. Because the final product claimed is considered to

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comprise a dried organic film layer (see claim 1), the water recited in claim 3 is considered to be part of the solution used in making the final product. The water is not considered to be part of the final product. The OLED (per instant claim 5) further comprises an emitting layer over the hole injection-transportation layer per instant claim 7 (see col. 11, lines 46-52). The cathode is formed over the emission layer per instant claim 8 (see col. 11, lines 53-55). The device may further comprise thin film transistors per instant claim 12 (see col. 10, lines 51-54). Because Endo et al. discloses the same deposition surface material, the same photo-resist material, and the same plasma treatment process of these materials as set forth by applicant, the properties of surface energy recited in claim 1 and degrees of hydrophilic and hydrophobic properties of claim 4 are deemed to be inherently met by the reference.

9. Claims 1-3, 5-9, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kwong et al. (US 2004/0214038 A1). Kwong et al. discloses electronic devices comprising an anode layer formed of ITO (see par. 27) per the “deposition surface”, a polyimide photoresist grid (see par. 72) per the “photo-resist layer”, and a hole injection layer formed by a solution of PEDOT:PSS conductive polymer (see par. 52) per the “organic layer composed of a dried film” per instant claims 1 and 2. The device further comprises an emissive layer (see Kwong et al. claim 5) per instant claim 7. The device also comprises a cathode (see par. 55) per instant claim 8. Kwong et al. discloses the materials and structures described are applicable to organic electroluminescent devices (OLEDs), organic solar cells, and organic transistors (see par. 60) per instant claims 5, 12, and 13. Claim 3 is considered to be drawn to intermediate solutions used in the process of forming the final product device. Kwong et al. is deemed to disclose the final product. Because Kwong et al. disclose the same deposition surface material, the same photo-

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resist material, and the same plasma treatment process of these materials as set forth by applicant, the properties of surface energy recited in claim 1 and degrees of hydrophilic and hydrophobic properties of claim 4 are deemed to be inherently met by the reference.

10. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (US 2004/0021413 A1). Ito et al. discloses an electroluminescent display comprising an anode comprising ITO per the deposition surface (see par. 189), partition walls comprising a photoresist material (see par. 189), and a PEDOT:PSS hole injection layer (see par. 170). Ito et al. discloses the use of specific PEDOT:PSS solution "Baytron P AI 4083" (which is disclosed in the specification as comprising PEDOT to PSS in a 1:6 ratio per instant claim 10; see also Baytron P AI 4083 product material information cited with this Office action) (see par. 170). Claims 3 and 11 are drawn to solutions used in the process of making the final product. Ito et al. is deemed to teach a device comprising all required components of the final product. Ito et al. further discloses a luminescent layer (see par. 174) and a cathode (see par. 182) per instant claims 7 and 8. Ito et al. further describes plasma treatment of the device (see par. 137) per instant claim 4.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dawn Garrett
Primary Examiner
Art Unit 1774

March 15, 2005